

National Bio and Agro Defense Facility
Possible Impact of Location of the NBAF Facility
Flora, Mississippi- Madison County
\$88.25 Million for site improvements

- Building size 500,000 – 550,000 square feet
- Initial Investment \$450 M
- Construction Jobs 1,000-1,500
- Direct Jobs-High-paying research (permanent) 250-350
- Number of indirect jobs, conservative est. (permanent) 400
0 Possible indirect jobs(permanent) 1,000
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- Salaries for direct jobs over twenty (20) years \$550 M
- Economic Impact over 20 years \$3.5B
- NBAF will provide the nation with integrated research and response capabilities to protect animal and public health. It will have the highest biocontainment capability available for this important mission
- Large percentage of workforce will be Ph.D. level researchers
- High-paying and sustainable economic development
- This facility will be one of the largest federal research facilities in the country
- “One of the things we hope is that the institute would be used as a lily pad – a starting point – for NBAF research projects.”(Dr. James Guikema, Associate Provost at Kansas State University.
- “We are looking at this in the same way Oak Ridge, TN did before the national lab located there.” Ross Tucker, Vice

President of economic development for the Metro-Jackson Chamber of Commerce

- Wages and salaries earned by NBAF employees would be paid collectively by the population of the U.S. through the Federal Government, whereas revenue at a retail outlet is derived from local residents as they purchase goods.
- These two types of economic activity also have different effects on the local economy – with NBAF, salaries and wages remain in the community as employees buy homes and support local businesses.
- In contrast, retail revenues are directed in large part across the country (as well as out of the country) to the suppliers of the goods sold and in the form of profit to owners and shareholders. **NBAF constitutes new jobs**, whereas hiring by retailers (and especially big box stores) frequently involves some amount of displacement, with jobs lost at competitors or other locations.
- Perhaps the most important are the impossible-to-quantify benefits. These include:
 - 0 NBAF will enhance Mississippi and Central Mississippi as a place to locate biomedical and Biotechnology-related firms
 - 1 NBAF will also collaborate and work synergistically with local assets including The University of Mississippi Medical Center, Jackson State University, Tougaloo College, and other state IHL universities.

0 This will further enhance the local reputation and also generate new economic impacts in the form of research grants, intellectual property income and other types of funding.

1 Consortium comprised of Mississippi entities: State of Mississippi, The University of Mississippi, University Medical Center, Mississippi State University, Jackson State University, Tougaloo College, and Alcorn State University, & other interstate partners, Tulane University, Tulane National Primate Research Center, Iowa State University, The University of Texas Medical Branch Galveston and Battelle Memorial Institute.

2 Includes full endorsement from the MS Cattlemen's Association, MS Pork Producers, MS Poultry Association, and the Mississippi Department of Agriculture and Commerce.

FAQ's

What is the National Bio and Agro-Defense Facility (NBAF)?

The NBAF is a new national biological and agricultural research facility proposed by the U.S. Department of Homeland Security (DHS) that will provide space to conduct research to protect human health and agriculture from infectious diseases, whether they occur naturally or are deliberately released. The Flora site was selected for a short list announced in July 2007. A final site selection is anticipated in 2008.

What are zoonotic diseases?

Many infectious diseases are zoonotic – they can be transmitted from animals to humans. Effective prevention and response to these new and emerging threats requires research on the host animals as well as humans. Examples of familiar zoonotic diseases include West Nile virus, anthrax, BSE or mad cow disease, avian influenza, and severe acute respiratory syndrome (SARS). To ensure the safety of researchers and the community,

research on zoonotic diseases must be conducted in biosafety level (BSL) 3 or 3-AG laboratories, or BSL-4 laboratories, depending on the pathogen.

How will the NBAF benefit Mississippi?

By adding to the region's already impressive assets of research infrastructure and talent, the NBAF will help the Universities attract more top-notch researchers and grants and build on its reputation as a leader in research that improves animal and human health. The NBAF will provide opportunities for collaborations between NBAF researchers, Mississippi IHL faculty and students, and researchers at other agencies, institutions and laboratories that conduct research on foreign animal and zoonotic diseases.

How will the NBAF benefit Flora-Madison County and the surrounding counties?

The NBAF would create an estimated 1,000 - 1,500 construction jobs over three years. It would employ an estimated 250 or more scientists and staff. In addition, an estimated 400 jobs will be created in the community as a result of the facility.

The NBAF would also help establish MS Interstate 55 as the state's biotechnology corridor, helping to attract private industry in fields such as vaccine research and development and helping to make the region the Silicon Valley of infectious disease research. It would help the Universities to attract more top-notch researchers and grants and build on its reputation as a leader in research that improves and protects animal and human health.

National Bio and Agro-Defense Facility crucial

By Sen. Thad Cochran (R-Miss.)

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The attacks of Sept. 11, 2001 changed the way our nation thinks about its security. Terrorist strikes on our native soil transformed speculation about our vulnerabilities into a palpable reality of our insecurity. The Department of Homeland Security was created to fortify our nation's security and our research and response capabilities.

As our enemies develop new and innovative ways to harm us, we must continue to upgrade our own security capabilities. In order to stay ahead, the Department of Homeland Security must continuously assess our weaknesses and invest in sound science and emerging technology to develop better ways to protect our nation from terrorist attacks and mitigate the impact of disasters.

The threats we face may include biological and agricultural terrorism tactics that are designed to harm livestock and disrupt our food supply.

The potential also exists for diseases currently confined to animal populations to be transmitted to humans. The notion that terrorists may be attempting to exploit these possibilities is a serious concern.

A 2001 outbreak of foot-and-mouth disease in the United Kingdom, which was likely caused by illegally imported food products, required the slaughter of more than 10 million sheep and cattle. Homeland Security officials estimate that such an event in the U.S. could cost more than \$37 billion. Additionally, the Nipah and Hendra viruses, which have been discovered in Australia, Malaysia and Singapore, could pose a serious threat to both livestock and humans.

While four federal facilities currently exist in the U.S. with the capability to study high-consequence human pathogens, we lack the means to study effectively the unique threats posed to our livestock and food supply. We need the scientists and the tools to protect our citizens and our food supply against the diseases that could be spread either intentionally or unintentionally to animals and from animals to humans.

The Department of Homeland Security has recognized the need to establish a new facility for the concentrated study of such threats to our homeland. Plans for a state-of-the-art National Bio and Agro-Defense Facility (NBAF) are in the works. There is broad consensus that the existing federal facility, built at Plum Island, New York in 1954, is obsolete and costly to maintain and operate. It also lacks the high level bio-containment laboratories necessary to push the boundaries of science.

The new research facility that the Department of Homeland Security will manage should enhance our agricultural and public health. We need modern

containment laboratories with sufficient capacity to deal effectively with animal diseases. NBAF will provide essential laboratory capabilities our nation must acquire if we hope to protect ourselves against diseases like foot-and-mouth and the Nipah virus.

Over the past three years, Congress has provided the department with \$46 million to select a location and begin preliminary designs for NBAF. The department plans to select a location for the facility by October of this year so that construction can begin by 2010. Six sites have been announced as finalists to house the new facility, one of which is in my home state of Mississippi.

I urge the department to meet the October 2008 deadline so that the work that has already been done with regard to the location of NBAF is not lost as a new administration takes over.

I commend the Department of Homeland Security Science and Technology Directorate for its commitment to defend our country against biological and agricultural terrorist threats. Congress has a complementary responsibility to ensure that the Department of Homeland Security is supported with the proper authority and funding to develop the tools and knowledge necessary to address these challenges.

Moving forward with the National Bio and Agro-Defense Facility is the right thing to do.

Cochran is ranking member of the Senate Appropriations Committee.